

INFORMATION DISCLOSURE STATEMENT
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DEC 10 1999

APPLICANT:
Lester F. Ludwig, et al.FILING DATE
May 05, 1998GROUP
2756

U. S. PATENT DOCUMENTS

*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE
	P1 3,723,653	3/27/73	Tatsuzawa			
	P2 3,873,771	3/25/75	Kleinerman, et al.			
	P3 3,974,337	8/10/76	Tatsuzawa			
	P4 4,005,265	1/25/77	Verhoeckx, et al.			
	P5 4,054,908	10/18/77	Poirier et al.			
	P6 4,210,927	7/1/80	Yumde, et al.			
	P7 4,441,180	4/3/84	Schussler, et al.			
	P8 4,451,705	05/29/84	Burke et al.			
	P9 4,516,156	5/7/85	Fabris, et al.			
	P10 4,529,839	7/16/85	Colton, et al.			
	P11 4,529,840	7/16/85	Colton, et al.			
	P12 4,531,024	7/23/85	Colton, et al.			
	P13 4,574,374	3/4/86	Scordo			
	P14 4,645,872	2/4/87	Pressman, et al.			
	P15 4,650,929	3/17/87	Boerger, et al.			
	P16 4,653,090	03/24/87	Hayden et al.			

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Group 2100

P17	4,686,696	8/11/87	Tompkins et al.				
P18	4,710,917	12/1/87	Tomkins, et al.				
P19	4,716,585	12/29/87	Tompkins et al.				
P20	4,817,018	03/28/89	Cree et al.				
P21	4,837,798	6/6/89	Cohen, et al.				
P22	4,847,829	07/11/89	Tompkins et al.				
P23	4,922,523	5/1/90	Hashimoto				
P24	4,931,872	06/05/90	Stoddard et al.				
P25	4,953,159	8/28/90	Hayden et al.				
P26	4,961,211	10/2/90	Tsugane, et al.				
P27	4,965,819	10/23/90	Kannes				
P28	4,977,520	12/11/90	McGauhey et al.				
P29	4,987,492	1/22/91	Stults, et al.				
P30	4,995,071	2/19/91	Weber, et al.				
P31	5,003,532	3/26/91 3	Ashida, et al.				
P32	5,010,399	4/23/91	Goodman, et al.				
P33	5,014,267	5/7/91	Tompkins et al.				
P34	5,027,400	6/25/91	Baji, et al.				

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	P35	5,042,062	8/20/91	FRANCIS B. TUDOR et al.			
	P36	5,072,442	12/10/91	Todd			
	P37	5,099,510	3/24/92	Blinken, Jr., et al.			
	P38	5,130,399	07/19/92	Bordy et al.			
	P39	5,130,793	7/14/92	Bordry, et al.			
	P40	5,130,801	7/14/92	Yamaguchi			
	P41	5,155,761	10/13/92	Hammond			
	P42	5,170,427	12/8/92	Guichard, et al.			
	P43	5,195,086	03/16/93	Baumgartner et al.			
	P44	5,200,989	4/6/93	Milone			
	P45	5,202,957	4/13/93	Serrao			
	P46	5,218,627	6/8/93	Corey, et al.			
	P47	5,224,094	06/29/93	Maher et al.			
	P48	5,239,466	08/24/93	Morgan et al.			
	P49	5,253,362	10/12/93	Nolan et al.			
	P50	5,260,941	11/09/93	Wilder et al.			
	P51	5,283,637	2/1/94	Goolcharan			
	P52	5,303,343	04/12/94	Ohya et al.			

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INFORMATION DISCLOSURE STATEMENT
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JC50
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Lester F. Ludwig, et al.FILING DATE
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	P53	5,315,633	8/24/94 U.S. PATENT & TRADEMARK OFFICE	Champa				
	P54	5,333,299	07/26/94	Koval et al.				
	P55	5,351,276	09/27/94	Doll Jr. et al.				
	P56	5,353,398	10/4/94	Kitahara et al.				
	P57	5,363,507	11/08/94	Nakayama et al.				
	P58	5,365,265	11/94	Shibata et al.				
	P59	5,373,549	12/13/94	Bales et al.				
	P60	5,374,952	12/20/94	Flohr				
	P61	5,379,374	01/03/95	Ishizaki et al.				
	P62	5,382,972	1/17/95	Kannes				
	P63	5,392,346	2/21/95	Hassler et al.				
	P64	5,404,435	04/04/95	Rosenbaum				
	P65	5,408,526	4/18/95	McFarland et al.				
	P66	5,408,662	04/18/95	Katsurabayashi				
	P67	5,432,525	07/11/95	Maruo et al.				
	P68	5,444,476	8/22/95	Conway				
	P69	5,471,318	11/28/95	Ahuja et al.				
	P70	5,473,679	12/05/95	La Porta et al.				

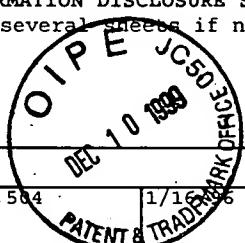
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P71	5,485,584	1/16/96	Ohnsorge					Group 2700
P72	5,491,695	02/13/96	Meagher et al.					
P73	5,515,491	5/7/96	Bates et al.					
P74	5,526,024	6/11/96	Gaglianello et al.					
P75	5,550,966	08/27/96	Drake et al.					
P76	5,553,222	09/03/96	Milne et al.					
P77	5,561,736	10/1/96	Moore et al.					
P78	5,581,702	12/12/96	McArdle					
P79	5,590,128	12/31/96	Maloney et al.					
P80	5,594,495	01/14/97	Palmer et al.					
P81	5,602,580	2/11/97	Tseng					
P82	5,608,653	03/04/97	Ahuja et al					
P83	5,689,553	11/18/97	Ahuja et al.					

FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO
5	F1 0 041 902	16 Dec '81	EP				
6	F2 0 190 060	08 Jan '86	EP				

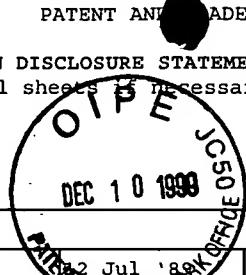
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	F3	0 354 370	22 Jul '85	EP						
	F4	35 07 152	29 Aug '85	DE						
	F5	0 403 118	19 Dec '90	EP						
	F6	0 414 222	22 Aug '90	EP						
	F7	0 436 345	10 Jul '91	EP						
	F8	0 453 128	23 Oct '91	EP						
	F9	0 497 022	31 Jan '91	EP						
	F10	0 516 371	27 May '92	EP						
	F11	0 523 618	14 Jul '92	EP						
	F12	0 535 601	07 Apr '93	EP						
	F13	0 523 626	14 Jul '92	EP						
	F14	0 548 597	30 Jun '93	EP						
	F15	0 561 381	17 Mar '93	EP						
	F16	0 604 053	29 Jun '94	EP						
	F17	WO 94/24803	27 Oct '94	PCT						
	F18	WO 92/21211	26 Nov '92	PCT						
	F19									

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OTHER PUBLICATIONS (including Author, Title, Date, Pertinent Pages, Etc.)

D1	ACM Press, Conference on Organizational Computing Systems, SIGOIS Bulletin, Vol. 12, No. 2-3, Nov 5-8, 1990
D2	The American Users Forum (Niu-Forum) Aug 6-9, 1990
D3	Bellcore News, "IMAL Makes Media Merging Magic," 5(20), Nov 9, 1988
D4	Frontiers in computer communications technology, Sigcom '87 Workshop (Aug 11-13, 1987)
D5	Unix 4 th Berkeley Release 1991 man pages for 'login,' 'htmp,' 'talk,' and 'who.' Online Internet: http://www.de.freebds.org
D6	Statement by Attorney for Applicants-Describing Product Development
D7	AHUJA et al., "Coordination and Control of Multimedia Conferencing," IEEE Communication Magazine, 30(5): 38-42, May 1992
D8	AHUJA et al., "Networking Requirements of the Rapport Multimedia Conferencing System," INFOCOM '88, IEEE, pp. 746-751, 1988
D9	BISWAS et al., "Distributed Scheduling of Meetings: A Case Study in Prototyping Distributed Application," System Integration, 1992 2 nd International Conference
D10	COHEN et al., "Audio Windows: User Interfaces for Manipulating Virtual Acoustic Environments," pp. 479-480
D11	COHEN et al., "Audio Windows for Binaural Telecommunication," EIC, Tokyo (10/91)
D12	COHEN et al., "Design and Control of Shared Conferencing Environments for Audio Telecommunication," Proceedings of the Second Int'l Symposium on Measurement and Control Robotics (ISMCR '92), Tsukuba Science City, Japan, (November 15-19, 1992), pp. 405-412
D13	COHEN et al., "Exocentric Control of Audio Imaging in Biaural Telecommunication," IEICE Trans. Fundamentals, Vol. E75-A, No. 2, (February 1992)
D14	COHEN et al., "Multidimensional Audio Window Management," Int'l Journal of Man-Machine Studie, Vol. 34:319-336 (1991)
D15	COHEN et al., "Multidimensional Audio Windows: Conferences, Concerts and Cocktails," Human Factors Society Meeting, SF, CA, pp. 1-15, June-12-91
D16	CRAWFORD et al., "Videomatic Switching: System and Services, Digital Communications," Int. Zurich Seminar, 1988
D17	ENSOR et al., "The Rapport Multimedia Conferencing System - Software Overview," Computer Workstation Conference, IEEE, pp. 52-58, 1988

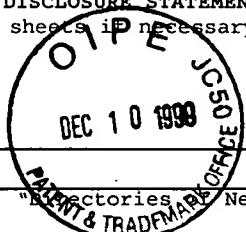
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D18	GOPAL et al., "Directories Networks with Causally Connected Users," IEEE, pp. 1060-1064, 1988
D19	HORN et al., "An ISDN Multimedia Conference Bridge," TENCON '90 - 1990 IEEE Region 10 Conference on Computer and Communication, pp. 853-856, 1990
D20	KAMEL, "An Integrated Approach to Share Synchronous Groupware Workspaces," IEEE 1993
D21	KENDALL et al., "Simulating the Cue of Spatial Hearing in Natural Environments," Northwestern University, Evanston, IL 60201
D22	KLEIN, Telekommunikation von Angesicht zu Angesicht 2323 Telcom Report 9 (1986) Sept./Okt., No. 5, Erlangen, W. Germany
D23	KOBAYASHI et al., "Development and Trial Operation of Video Teleconference System," IEEE Globecom, pp. 2060-2063, 1999
D24	LAKE et al. "A network environment for studying multimedia network architecture and control," (1989 Globecom)
D25	LANTZ, An Experiment in Integrated Multimedia Conferencing, Department of Computer Science, Stanford University, Stanford, CA 94305, Dec 1986
D26	LANTZ et al., Collaboration Technology Research at Olivetti Research California, August 1989
D27	LAUWERS et al., Replicated Architectures for Shared Window Systems: A Critique, (Olivetti Research California) Version of April 1990
D28	LAUWERS et al., Collaboration Awareness in Support of Collaboration Transparency: Requirements for the Next Generation of Shared Windows Systems, (Olivetti Research California) Version of April 1989
D29	LEUNG et al., Optimum Connection Paths for a Class of Videoconferences, Department of Information Engineering, the Chinese University of Honk Kong, Shatin, Hong Kong
D30	MAENO et al., Distributed Desktop Conferencing System (MERMAID) Based on Group Communication Architecture, The Transactions of the Institute of Electronics, Information and Comm. Engineers E74 (1991) Sept., No. 9, Tokyo, JP
D31	MARTENS, "Principal Components Analysis and Resynthesis of Spectral Cues to Perceived Direction," Proceedings of the 1987 Int'l Computer Music Conference, Northwestern University, Evanston, IL 60201
D32	MASAKI et al., "A Desktop Teleconferencing Terminal Based on B-ISDN: PMTC," NTT Review, 4(4):81-85, 1992
D33	X NG et al., Systems Integration '90, (April 23-26, 1990)
D34	NUNOKAWA et al., "Teleconferencing Using Stereo Voice and Electronic OHP," IEEE, 1988
D35	OHMORI et al., "Distributed Cooperative Control for Sharing Applications Based on Multiparty and Multimedia Desktop Conferencing System," IEEE, 1992

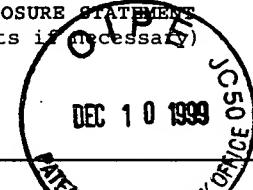
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D36	UPATE, "Trends in Multimedia Applications and the Network Models to Support Them," Globecom's 90: 1990
D37	PERKINS, "Spider: An investigation in collaborative technologies and their effects on network performance"
D38	RAMANATHAN et al., Optimal Communication Architectures for Multimedia Conferencing in Distributed Systems, Multimedia Laboratory Dept. of Computer Science and Engineering, University of San Diego, La Jolla, CA
D39	RANGAN et al., "Software architecture for integration of video services in the etherphone system," IEEE J. on Selected Areas in Comm., 9(9):1395-1404, Dec '91
D40	RANGAN et al., "A Window-Based Editor for Digital Video and Audio," System Sciences, 1992 Hawaii Int'l Conference (1992)
D41	SAKATA, "B-ISDN Multimedia Workstation Architecture," IEEE, 1993
D42	SAKATA et al., "Development and Evaluation of an In-House Multimedia Desktop Conference System," NEC Research & Development, no. 98, pp. 107-117, July 1990
D43	STEFIK et al., "Beyond the Chalkboard: Computer Support for Collaboration and Problem Solving," Communications of the ACM, Vol. 30, No. 1, Jan 1987
D44	VIN et al., Hierarchical Conferencing Architectures for Inter-Group Multimedia Collaboration, Multimedia Laboratory Department of Computer Science and Engineering University of California at San Diego, La Jolla
D45	VIN et al., Multimedia Conferencing in the Etherphone Environment, Computer Magazine, Vol. 24, Issue 10, pp. 69-79, 1991
D46	WATABE et al., "A Distributed Multiparty Desktop Conferencing System and Its Architecture," IEEE, 1991
D47	WATABE et al., "Distributed Desktop Conferencing System with Multiuser Multimedia Interface," IEEE, 1991
D48	WEISS, Desk Top Video Conferencing - An Important Feature of Future Visual, SIEMENS AG - Munich - West Germany
D49	ZELLWEGER et al., "An Overview of the Etherphone System and Its Applications," Computer Workstations Conference, 1988
D50	

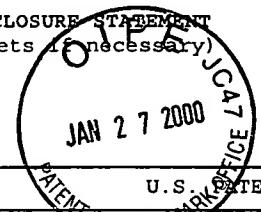
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<i>ds</i>	P1 4,475,193	10/02/84	Brown			<i>Feb 1 2000</i>
	P2 4,796,293	01/03/89	Blinken et al.			<i>Group 2700</i>
	P3 4,888,795	12/19/89	Ando et al.			
	P4 4,998,243	03/05/91	Kao			
	P5 5,056,136	10/08/91	Smith			
	P6 5,073,926	12/17/91	Suzuki et al.			
	P7 5,157,491	10/20/92	Kassatly			
	P8 5,195,087	03/16/93	Bennett et al.			
	P9 5,231,492	07/27/93	Dangi et al.			
	P10 5,319,795	07/07/94	Hamabe et al.			
	P11 5,333,133	07/26/94	Andrews et al.			
	P12 5,335,321	08/02/94	Harney et al.			
	P13 5,345,258	09/06/94	Matsubara et al.			
	P14 5,367,629	11/22/94	Chu et al.			
	P15 5,375,068	12/20/94	Palmer et al.			
	P16 5,384,598	01/24/95	Rodriguez et al.			

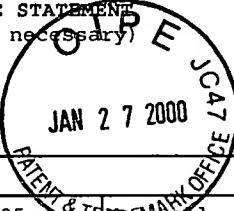
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<i>L</i>	P17	5,384,772	01/24/95	47	1			FEB 1 2000
	P18	5,392,223	02/21/95	Caci				Group 2700
	P19	5,422,883	06/06/95	Hauris et al.				
	P20	5,475,421	12/12/95	Palmer et al.				
	P21	5,506,954	04/09/96	Arshi et al.				
	P22	5,565,910	10/15/96	Rowse et al.				

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		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
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OTHER PUBLICATIONS (including Author, Title, Date, Pertinent Pages, Etc.)

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